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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,786	11/30/2001	Atsushi Ishikawa	018656-263	4572

7590 04/04/2006

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EXAMINER	
BAKER, CHARLOTTE M	

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
09/996786			

EXAMINER

ART UNIT	PAPER
	03302006

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

Contacted Mr. William C. Rowland to inquire about the status of case number 09/996,786 and he informed me that they had never received my Office Action. I told Mr. Rowland that I would take care of restarting the response period.

KA Williams

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER

Office Action Summary	Application No.	Applicant(s)	
	09/996,786	ISHIKAWA, ATSUSHI	
	Examiner	Art Unit	
	Charlotte M. Baker	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11/30/2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *01/15/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 7-9 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al. (6,608,941).

Regarding claim 1: Suzuki et al. disclose a dot characteristic point extracting device (Fig. 12, resolution converting unit 85) that extracts dot characteristic points from the M-level image data (Examiner is interpreting M-level image data to be multi-value data, col. 22, ln. 4-11); a dot area identifying device (Fig. 12, area separating unit 83) that determines whether a target pixel belongs to a dot area (col. 34, ln. 17-21) based on the results of the extraction carried out by the dot characteristic point extracting device (Fig. 12, resolution converting unit 85); an N-level conversion unit (Fig. 12, half tone processing unit 47) that converts the M-level image data (Examiner is interpreting M-level image data to be multi-value data, col. 22, ln. 4-11) into N-level image data (M > N) (Examiner is interpreting N-level image data to be binary data, col. 22, ln. 4-11); and a parameter setting unit (Fig. 12, filter unit 84) that sets the N-level conversion parameters used by the N-level conversion unit (Fig. 12, half tone processing unit 47) based on the

results of the determination carried out by the dot area identifying device (Fig. 12, area separating unit 83, col. 34, ln. 30-32 and 42-49).

Regarding claim 2: Suzuki et al. satisfy all the elements of claim 1. Suzuki et al. further disclose an area identifying device (Fig. 12, area separating unit 83) that determines whether the target pixel belongs to a character area or a photograph area (col. 34, ln. 17-21), wherein the parameter setting unit (Fig. 12, filter unit 84) specifies N-level conversion parameters in the N-level conversion unit (Fig. 12, half tone processing unit 47) based on the results of the determination carried out by the area identifying device (Fig. 12, area separating unit 83) and the results of the determination carried out by the dot area identifying device (Fig. 12, area separating unit 83).

Regarding claim 3: Suzuki et al. satisfy all the elements of claim 2. Suzuki et al. further disclose wherein said area identifying device (Fig. 12, area separating unit 83) determines whether the target pixel belongs to a character area or a photograph area (col. 34, ln. 17-21) based on the difference between the largest density value and the smallest density value in the area of a certain size including the target pixel (col. 34, ln. 42-52).

Regarding claim 7: Suzuki et al. satisfy all the elements of claim 1. Suzuki et al. further disclose wherein said dot characteristic point extracting device (Fig. 12, resolution converting unit 85) extracts as dot characteristic points isolated points having a density difference of a specified minimum value from their surrounding pixels (Fig. 15), and said dot area identifying device (Fig. 12, area separating unit 83) identifies a dot area by comparing with a specified threshold value the number of isolated points existing in an area of a specified size that includes the target pixel (col. 35, ln. 51-59) (Fig. 13).

Regarding claim 8: The structural elements of apparatus claim 1 perform all of the steps of method claim 8. Thus, claim 8 is rejected for the same reasons discussed in the rejection of claim 1.

Regarding claim 9: Suzuki et al. satisfy all the elements of claim 8. The structural elements of apparatus claim 2 perform all of the steps of method claim 9. Thus, claim 9 is rejected for the same reasons discussed in the rejection of claim 2.

Regarding claim 13: Arguments analogous to those stated in the rejection of claim 1 are applicable. In addition, Suzuki et al. disclose an output unit (Fig. 12, LSU 36) that outputs an image based on the N-level image data (Fig. 12, output of half tone processing unit connects to the LSU 36).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 4-6 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. in view of Ohta (6,341,019).

Regarding claim 4: Suzuki et al. satisfy all the elements of claim 1. Suzuki et al. further disclose wherein said N-level conversion unit (Fig. 12, half tone processing unit 47) performs N-level (Examiner is interpreting N-level image data to be binary data, col. 22, ln. 4-11) conversion of M-level image data (Examiner is interpreting M-level image data to be multi-value data, col. 22, ln. 4-11).

Suzuki et al. fail to specifically address an error diffusion method.

Ohta discloses using the error diffusion method (col. 4, ln. 32-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include an error diffusion method in order to convert multilevel data to binary data.

Regarding claim 5: Suzuki et al. in view of Ohta satisfy all the elements of claim 4. Suzuki et al. further disclose wherein the N-level conversion parameters set by the parameter setting unit (Fig. 12, filter unit 84) include an N-level conversion error gain adjustment (Fig. 16, selector 75, "0" or "1").

Regarding claim 6: Suzuki et al. in view of Ohta satisfy all the elements of claim 4. Suzuki et al. further disclose wherein the N-level conversion parameters set by the parameter setting unit include an N-level conversion reference value (Fig. 16, reference density storage unit 93) (col. 39, ln. 3-8).

Regarding claim 10: Suzuki et al. satisfy all the elements of claim 9. The structural elements of apparatus claim 4 perform all of the steps of method claim 10. Thus, claim 10 is rejected for the same reasons discussed in the rejection of claim 4.

Regarding claim 11: Suzuki et al. in view of Ohta satisfy all the elements of claim 10. The structural elements of apparatus claim 5 perform all of the steps of method claim 11. Thus, claim 11 is rejected for the same reasons discussed in the rejection of claim 5.

Regarding claim 12: Suzuki et al. in view of Ohta satisfy all the elements of claim 10. The structural elements of apparatus claim 6 perform all of the steps of method claim 12. Thus, claim 12 is rejected for the same reasons discussed in the rejection of claim 6.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlotte M. Baker whose telephone number is 571-272-7459. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on 571-272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMB

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER